



P.B.5818 - Patentlaan 2
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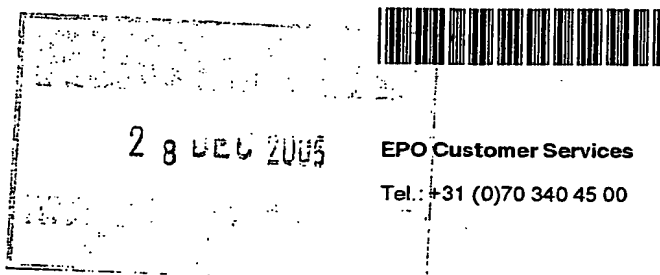
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Date

22.12.05

Reference EPP92536	Application No./Patent No. 03775878.6 - 2307 PCT/JP0315034
Applicant/Proprietor Bridgestone Corporation	

COMMUNICATION

The European Patent Office herewith transmits the supplementary partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The Search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within **one month** after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,-) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement 2 to OJ EPO 01/2005.





European Patent
Office

**SUPPLEMENTARY
PARTIAL EUROPEAN SEARCH REPORT**

under Rule 46, paragraph 1 of the European Patent Convention EP 03 77 5878

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 4 314 864 A (LOEFFLER ET AL) 9 February 1982 (1982-02-09) * column 4, line 40 - column 5, line 37; claims 1,5; figures 1-18 *	1-8	B29D30/26 B29D30/20 B65G35/06
Y	DE 195 14 353 A1 (ZIERDT, ROLF W., 64342 SEEHEIM-JUGENHEIM, DE; PETZ, GEORG, 64347 GRIES) 24 October 1996 (1996-10-24) * page 2, lines 3-54; claims 1-6; figures 1,4Y *	1-8	
A	US 2001/017094 A1 (ISHIKAWA SHINJI ET AL) 30 August 2001 (2001-08-30) * paragraphs '0011! - '0015!, '0019!; claims 1-3,6,7,10 *	1-8	
A	US 6 425 478 B1 (EBERLE JUERG) 30 July 2002 (2002-07-30) * column 8, lines 19-44; claims 1,6-8; figures 1-13 *	1-8	
			TECHNICAL FIELDS SEARCHED (IPC)
			B29D B61F B65G

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

Place of search

Munich

Date of completion of the search

9 December 2005

Examiner

Deubler, U

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8

Tire building system comprising a building carriage and endless rails, whereby an arcuate portion of said rails has a rail width narrower than a rail width of a straight portion of the rails.

2. claims: 9-13,16

Tire building system and a tire manufacturing method, whereby a toroidal building drum supported by a building carriage is moved along a track to various workstations.

3. claims: 14,15

Tire manufacturing system including a tire vulcanizing system whereby the vulcanizing system comprising a plurality of vulcanizing stations, a mold opening/closing station and a bladder attaching/detaching station.

Claims 1 to 8 are related to a tire building system comprising a building carriage and endless rails, whereby an arcuate portion of said rails has a rail width narrower than a rail width of a straight portion of the rails.

The purpose of this building system is to move the building drum to the respective workstations in a precise and play-free manner.

Claims 9 to 13 and 16 are related to a tire building system and a tire manufacturing method, whereby a toroidal building drum supported by a building carriage is moved along a track to various workstations. The purpose of this system and this method is to manufacture a complete tire in a more economical way.

Claims 14 and 15 are related to a tire manufacturing system including a tire vulcanizing system whereby the vulcanizing system comprising a plurality of vulcanizing stations, a mold opening/closing station and a bladder attaching/detaching station.

The purpose of this manufacturing system is to reduce the required space for the mold opening/closing function and the bladder attaching/detaching function and to reduce equipment costs by centralizing these functions at one place.

It cannot be seen how these three inventions are so linked as to form a single general inventive concept in the meaning of Article 82 EPC.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 77 5878

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-12-2005

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4314864	A	09-02-1982	CA	1156134 A1	01-11-1983
			DE	3177114 D1	16-11-1989
			EP	0039621 A2	11-11-1981
			ES	8301440 A1	01-03-1983
			JP	1359677 C	30-01-1987
			JP	57095438 A	14-06-1982
			JP	61021135 B	26-05-1986
			JP	61167539 A	29-07-1986
			PT	72969 A	01-06-1981
<hr/>					
DE 19514353	A1	24-10-1996	NONE		
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US 2001017094	A1	30-08-2001	NONE		
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US 6425478	B1	30-07-2002	AT	234250 T	15-03-2003
			AU	742194 B2	20-12-2001
			AU	1330899 A	19-07-1999
			CA	2310405 A1	08-07-1999
			WO	9933722 A1	08-07-1999
			DE	59807504 D1	17-04-2003
			DK	1042196 T3	22-04-2003
			EP	1042196 A1	11-10-2000
			JP	2001527007 T	25-12-2001
			RU	2205782 C2	10-06-2003
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